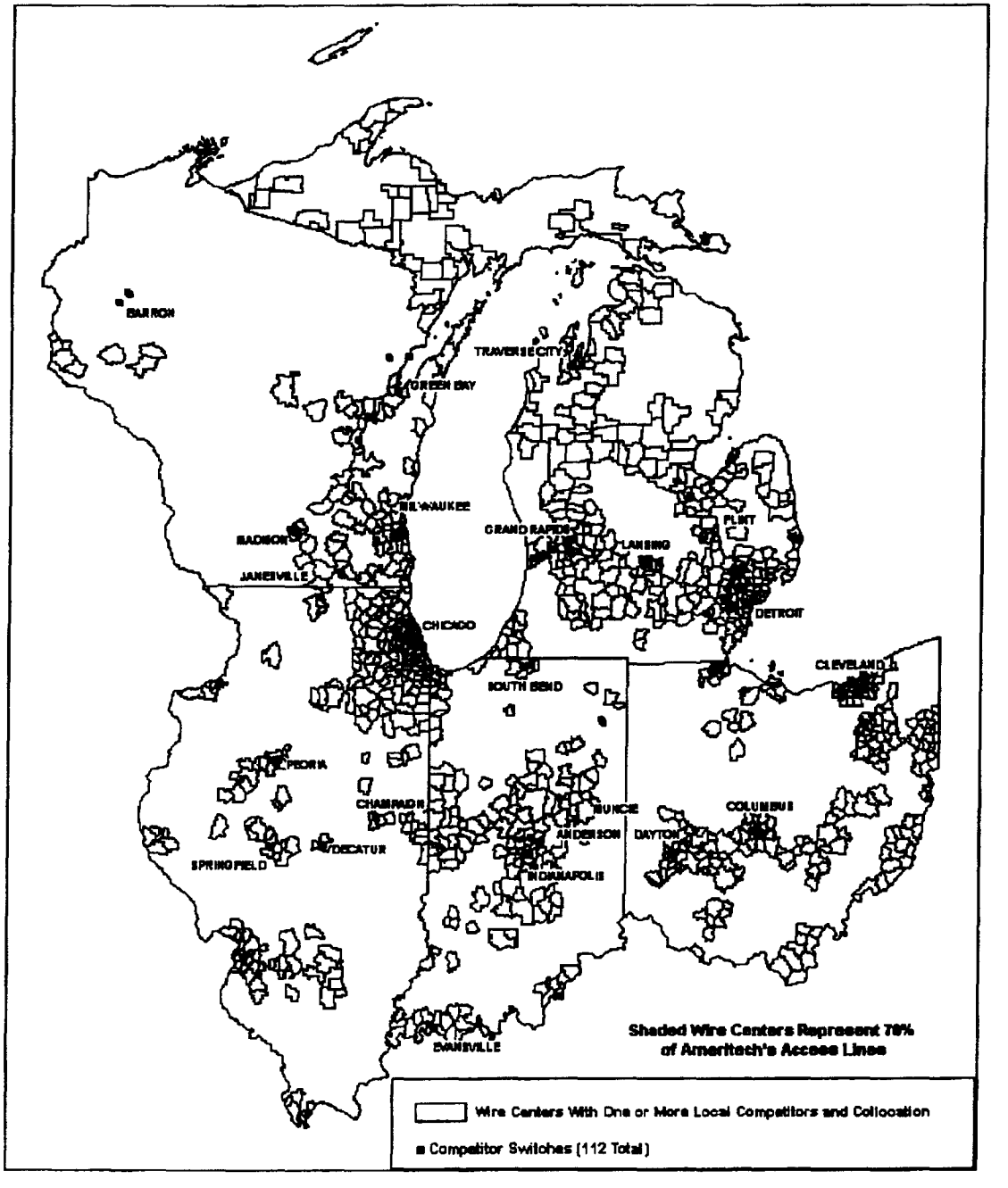
Figure 1

Facilities-Based Local Competition in Ameritech's Territory:

Ameritech Wire Centers With
One or More Local Competitors and Collocation



The fact that one or more competitor switches are located in many Ameritech cities demonstrates that unbundled switching elements are not required in all of Ameritech's local markets. This information does not tell us, however, which customers are or can be served by the switch. Hence, we also examine the customer locations that competitor switches can address. We look at two measures of addressability – the areas to which competitor switches are assigned, and collocation. Switch assignment data tell us where competitors are currently providing or plan to provide local service. Collocation tells us where competitors have facilities in place that can be used to provide (directly or with enhancements) interconnection between ILEC facilities and competitors' switches.

(b) Switch Assignments

Every local and toll switch in the U.S. must be told where to direct calls that have been dialed by subscribers. This is accomplished through use of a device called the LERG, which is an industry-wide database maintained by Telcordia Technologies (formerly Bellcore). The LERG tracks the location and type of all providers' switches. In the LERG, every active NPA-NXX is assigned to a local switch. Each NPA-NXX, further, is assigned a rate center, a broad geographical area used by LEC billing systems to determine how calls should be "rated" for billing purposes. Importantly, the rate center for an NPA-NXX is established by the carrier to whom the NPA-NXX is assigned. Hence, if a carrier has NPA-NXX codes assigned to a rate center in a particular geographic area, this indicates an apparent intention and ability to serve customers there

from its existing switch. Rate centers to which competitor switches are assigned, therefore provide an important measure of addressability. As noted in Table 1, 42 percent of the rate centers in Ameritech's region have one or more competitor switches assigned. These rate centers represent 85 percent of all Ameritech's switched access lines.

(c) Collocation

Collocation is another important measure of addressability. Where operational collocation exists in a wire center, competitors have facilities for interconnecting with the ILEC and, if desired, to the ILEC's unbundled loops, and are therefore well positioned to serve all of the customers in that wire center. To make our analysis consistent, we mapped Ameritech's wire centers to its rate centers and analyze collocation on a rate center basis.[64] We find that 21 percent of Ameritech's rate centers have one or more collocations, representing 72 percent of Ameritech's switched access lines.

(d) Switch Assignments and Collocation

Considered separately, switch assignments and collocation provide strong evidence that there is no economic basis for unbundling switching in many areas of Ameritech's region. Combining these measures confirms and strengthens this conclusion. We examined rate centers in which one or more competitor switches are assigned and one or more competitors are collocated. The analysis shows that 20 percent of the rate centers and 70 percent of the lines meet both conditions. As Table 1 shows, switching clearly fails the impair tests on a region-wide basis, in the sense that many

relevant geographic markets in Ameritech's region are not impaired even at step 1 of the test. For many markets, then, there is no need even to reach the necessary test which would pertain to proprietary aspects of switching.

TABLE 1

Facilities-Based Local Competition in Ameritech's Territory:

Five State Region

	Rate Center		Access Lines	
	Count	Percent	Count	Percent
Has One or More Competitor Switch Assignments	392	42%	17,425,288	85%
Has One or More Competitor Collocations	194	21%	14,673,785	72%
Has One or More Competitor Switch Assignments and One or More Collocations	185	20%	14,389,498	70%

A. Selected Local Markets

In addition to an Ameritech region-wide analysis, we examine competitive switching activity in three local markets – Chicago, Indianapolis and Columbus. We apply the same methodology used for the Ameritech region and demonstrate that in all of these markets switching fails the impair test.

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64 Some wire centers have more than one rate center assigned. In these cases, we assigned the wire center to one rate center to avoid double counting of collocation.

Not surprisingly, Chicago has a tremendous amount of competitor switching activity. Twenty-eight competitor switches are currently located in the city. One or more competitor switches are assigned to 100 percent of Chicago rate centers, covering 100 percent of the lines. There is also considerable collocation. Seventy-six percent of Chicago rate centers have one or more competitors collocated, covering 89 percent of the lines. Eighty-nine percent of the lines in Chicago are also in rate centers that have both one or more competitor switches assigned and one or more collocations. Competitor switching activity in Chicago is summarized in Table 2. It is clear from these measurements that most or all of the Chicago market fails the impair test,[65] and requiring unbundling of switching in this city would not only be in conflict with the Act and the Court remand, it would entail significant costs without attendant benefits. Any national rule that swept in Chicago would be uneconomic and would not meet the public interest.

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65 Even where alternative facilities do not currently exist, the propinquity of alternative facilities implies that an analysis of potential supply would almost surely sweep the rest of Chicago into the "fails" category, as well. The importance of propinquity for potential competition applies to the other markets, as well.

TABLE 2

Facilities-Based Local Competition in Ameritech's Territory:

Chicago

	Rate Center		Access Lines	
	Count	Percent	Count	Percent
Has One or More Competitor Switch Assignments	54	100%	4,300,716	100%
Has One or More Competitor Collocations	41	76%	3,826,623	89%
Has One or More Competitor Switch Assignments and One or More Collocations	41	76%	3,826,623	89%

Because of its size and prominence, one might expect Chicago to fail the impair test. With less than 900,000 lines, however, one might or might not expect Indianapolis or Columbus to fail the impair test. Our analysis shows that even in these smaller cities, competitors are serving or intending to serve the vast majority of customers. Indianapolis has 16 rate centers and 8 competitor switches. As shown in Table 3, one or more competitor switches is assigned to 50 percent of the rate centers, covering 93 percent of the lines. In addition, one or more competitors are collocated in 25 percent of the rate centers, covering 87 percent of the lines. Eighty-seven percent of the lines in Indianapolis are in rate centers with one or more switch assignments and one or more collocations. As competitors are positioned to serve the vast majority of customers in Indianapolis, this city also clearly fails the impair test, and there clearly is no reason to unbundle switching in most of Indianapolis.

TABLE 3

Facilities-Based Local Competition in Ameritech's Territory:

Indianapolis

	Rate Center		Access Lines	
	Count	**Percent**	**Count**	**Percent**
Has One or More Competitor Switch Assignments	8	50%	802,889	93%
Has One or More Competitor Collocations	4	25%	752,036	87%
Has One or More Competitor Switch Assignments and One or More Collocations	4	25%	752,036	87%

Columbus has a competitor switching profile very similar to Indianapolis. Ninety-two percent of the rate centers have one or more competitor switches, covering 99 percent of the lines in this market. Fifty-four percent of the rate centers have one or more collocations covering 89 percent of the lines. Fifty-four percent have both one or more switch assignments and one or more collocations. As Table 4 shows, most or all of Columbus also fails the impair test.

TABLE 4

Facilities-Based Local Competition in Ameritech's Territory:

Columbus

	Rate Center		Access Lines	
	Count	Percent	Count	Percent
Has One or More Competitor Switch Assignments	12	92%	748,544	99%
Has One or More Competitor Collocations	7	54%	667,600	89%
Has One or More Competitor Switch Assignments and One or More Collocations	7	54%	667,600	89%

Using actual data on switching and collocation for the Ameritech region, we demonstrate that unbundled switching is not required in order to have entrants viably enter the marketplace in at least many geographic areas. The three individual cities we study provide further evidence that unbundled switching is not required in these areas. The presence of existing competitors is a clear showing that entrants are not impaired by their inability to gain access to Ameritech's unbundled switching. The fact that switching has proprietary aspects that would need to undergo the necessary test if switching passed the impair test is moot by virtue of the fact that the impair test is failed for much of the region at step 1 of the impair test without the need to continue to a step 2 evaluation.

While one cannot necessarily conclude that there could be no local markets that could pass the impair test for switching, one also cannot conclude that they would without further analysis. What is more than clear, however, is that a national rule requiring switching to be unbundled would ignore the evidence and fall into the same

lack of substantive application of the necessary and impair test that resulted in the Supreme Court remand.

b) Step 2: Analysis of Potential Suppliers

As discussed in the earlier part of our paper, when step 1 fails in the impair test, there is no need to look beyond this step. The fact that there are existing competitors is sufficient to demonstrate convincingly that entrants can self-supply or find alternative sources of the element in question. The above analysis indelibly makes this point for switching. The results from Dr. Fitzsimmons' analysis using the LECG Entry Model reinforce this point for the Indianapolis and Columbus metropolitan areas. In areas where the existing supply test fails (e.g. Muncie-Anderson Indiana), Dr. Fitzsimmons' model, goes further to demonstrate that expanding facilities-based competition can be financially viable. His analysis also provides generalized guidelines for determining where CLECs have opportunities for value-positive entry without access to unbundled local switching and transport. His conclusions reinforce what we can already see from actual market experience. Indeed, it is equally significant that our conclusions validate his findings.

The Fitzsimmons model is instrumental in enabling the Commission and others to determine the viability of entry with and without unbundling of switching and transport. Because it can offer this capability, it provides a ready-made vehicle to determine whether unbundling of these elements is or is not required in the context of the necessary and impair tests. We will not attempt to replicate the extensive description of the model that is provided in Dr. Fitzsimmons' affidavit nor to describe in detail his results.

However, the analysis that he has performed with respect to switching is directly applicable and supplemental to that provided in our affidavit and thus bears summarizing briefly.

The model used by Dr. Fitzsimmons includes all of the important variables relevant to a determination of whether facilities-based entry is financially viable without access to unbundled switching and transport. It includes appropriate consideration of the cost and demand characteristics of the local markets that must be taken into account for such an analysis. Indeed, the subtleties that must be considered, such as the size of the relevant markets and the distances to available facilities, all are embodied in the model's economic and financial calculations. It is important both to recognize the powerful tool that the model as it is currently constructed is; and to recognize that it can be used by the Commission to analyze many aspects of our proposed necessary and impair tests require. Its availability further demonstrates the practicality of the approach that we recommend for implementing the requirements of the Act and to satisfy the instructions of the Supreme Court's remand.

Dr. Fitzsimmons analyzes both mid-sized and small metropolitan areas to assess the viability of entrants when self-supplying their own switching. In markets such as Indianapolis, Columbus, and Toledo within Ameritech's territory, he conclusively finds that entrants have the opportunity to earn significant profits with self-supplied local transport and switching. His model validates the actual investment decisions that existing CLECs have made, both verifying the workings of the model and affirming that competition is viable in many instances, without unbundling of switching and transport.

We encourage a careful inspection of Dr. Fitzsimmons' description and findings, both because the results he finds are highly supportive of all the corroborating evidence both we and others are presenting and because the tool that he utilizes is one that can greatly facilitate implementation of the required tests to implement the letter and spirit of the Act.

B. The Switching "Platform"

As discussed in the previous section, it is abundantly clear that switching fails the impair standard if it were to be imposed on a nationwide basis, and also clearly fails the test in many of Ameritech's markets. The fact that switching fails the test in many markets, at least in Ameritech's territory, raises the question of whether the integrated platform, which includes all of the relevant network elements, could pass either the necessary or impair tests. We conclude that it cannot.

From an economic standpoint, the central issue remains the same for the platform as it is for the individual network elements. The question is: does or can an entrant provide the service at issue by either utilizing existing network elements or by self-supplying its own? As before, this question is only relevant in the context of its effect on competition, not how it affects individual competitors. If any individual element fails the necessary and impair test (as appropriate for that element), then that element need not be unbundled under an appropriate interpretation of the Act. If only a single element were found to fail the relevant test (and therefore not be unbundled), the entrant could purchase all other elements from the incumbent and be able to furnish competitive service. Of course, if more than one element were found to fail the relevant tests, the

entrant would be forced to rely on still fewer incumbent-provided elements in order to compete. The inescapable conclusion of this train of logic is that, as long as at least one element that comprises the platform fails the necessary and/or impair tests, the platform, itself, also fails the test. The platform, as an integrated whole, is simply not required in order to provide competitive service. In fact, proclaiming the platform as meeting the necessary or impair test would sweep in an element that had already been found to fail the test. It would be convoluted logic to reach such a result.

In addition to the fact that it is unnecessary to "unbundle" the platform when one or more of its constituent elements are found to be unnecessary or would not impair competition, it would also be redundant since the resale of local service is required by the Act. The retail local service of the incumbent is no different from the service that could be provided by virtue of reassembling elements that comprise the service. Whether or not resale should be required is not at issue here, rather we simply state that the resale of local service enables competitors to compete for local service in the same way that the platform does. Indeed, if the reason for preferring the platform over resold local service is due to the differences between them in the wholesale cost to the entrant, the problem lies in the pricing of the two alternatives, not in inherent technical differences between the services. The problem then would be a regulatory one, not a marketplace one.

C. Conclusions

The Supreme Court remand of Rule 319 of the Act presents the Commission with both a challenge and an opportunity. Where the Commission did not articulate sufficient

standards that must be applied for determining whether incumbent LECs must unbundle their network elements, it now must find straightforward, efficient ways of doing so. Therein lies the challenge. At the same time, the Commission now has the opportunity to define these standards in ways that bring about true competitive benefits to society while avoiding the expenditure of unnecessary and wasted resources. We believe the approach outlined in our affidavit enables the Commission to accomplish both these goals.

Any reasonable reading of the necessary and impair standards must take into account whether one or more competitors is already providing the relevant end user service using something other than the incumbent's facilities. Our test for impairment begins with that perspective. If there is no firm currently supplying the element in question, the issue becomes whether a competitor could. Our test makes this question the second step of its analytical framework and, furthermore, Dr. Fitzsimmons' affidavit describes a sophisticated but straightforward tool for analyzing these situations, where they occur. Finally, if entry is not viable without the element, the question must be settled as to whether it would be, were the element made available. If this were not possible, unbundling would be a futile exercise resulting in costs and no benefits. Our analytical framework makes this the third step of the impair test.

Finally, if it is determined that a non-proprietary element must be supplied, it must be decided whether any proprietary aspects of the element also must be unbundled and provided. The necessary test we propose establishes the means to make this assessment.

We firmly believe that the tests we propose have many qualities that the Commission finds desirable, or even mandatory. They meet the requirements of the Act and satisfy the remand mandate of the Supreme Court. They will result in unbundling decisions that are not only sensible but have a sound economic foundation, ones that will bring society the benefits of unbundling while avoiding non-productive and costly outcomes. The proposal we offer also has the benefit of efficiency. It can be managed and administered in ways that do not involve protracted and expensive legal proceedings because the tests either involve bright lines, where appropriate, or provide the analytical tools for carrying out the job.

Any proper economic analysis in administering the necessary and impair tests can only be done in the correct economic context. Our proposal shows that the relevant geographic and product markets must be the frame of analysis. The approach we recommend would have the Commission establish a solid framework for analysis which then could be applied by the Commission itself, or at a more local level where the data are more readily available and familiarity with the situation greater.

We sincerely hope that the Commission will not err on the side of excessive unbundling. Indeed, the very words of the Act in establishing the necessary and impair tests are designed to prevent excess. The tests we propose will bring society the benefits that the Act and the Commission envisage without unnecessary costs. We urge their adoption.

We declare under penalty of perjury that the foregoing is true and correct to the best of our knowledge and belief.

Debra J. Aron

Subscribed and sworn before me this 24 day of May, 1999

Notary Public

OFFICIAL SEAL
JOYAS CHRISTY
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES: 12/17/01

My commission expires: _____

We declare under penalty of perjury that the foregoing is true and correct to the best of our knowledge and belief.

Robert G. Harris

Robert G. Harris

Subscribed and sworn before me this 25th day of May, 1999

Jacqueline O'Neill
Notary Public

My commission expires: 12/6/00

JACQUELINE O'NEILL
Commission # 1119125
Notary Public — California
Alameda County
My Comm. Expires Dec 6, 2000